

Attorney's Docket No.: 14539-004012 / JF-52US-D5-C2

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Takuya Tamatani et al.

Serial No. : 10/721,404

Filed : November 25, 2003

Title : CELL SURFACE MOLECULE MEDIATING CELL ADHESION AND SIGNAL TRANSMISSION

Art Unit : 1644

Examiner : Ilia I. Ouspenski

US PATENT & TRAD
OFFICE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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REQUEST FOR REFUND

On September 7, 2005, Applicants filed a second Preliminary Amendment for the above continuation application. The September 7th Preliminary Amendment was filed with no fee due since the above continuation application was filed with 69 claims and 3 independent claims, which fee was paid by way of check in the amount of \$1652. The September 7th Preliminary Amendment was filed with 68 claims and 3 independent claims (claims 1, 38 and 53). A copy of the September 7, 2005 Preliminary Amendment is enclosed for your convenience.

Accordingly, the charge to Deposit Account No. 06-1050 was improper, as all fees had previously been satisfied. Applicants respectfully request that the overcharge amount of \$200 be refunded to Fish & Richardson's Deposit Account No. 06-1050 as a credit, referencing Attorney Docket No. 14539-004012.

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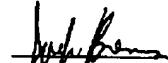
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Respectfully submitted,

Date: October 19, 2005



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Applicant : Takuya Tamatani et al. Art Unit : 1644
Serial No. : 10/721,404 Examiner : Ilia I. Ouspenski
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Commissioner for Patents
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PRELIMINARY AMENDMENT

Prior to examination, please amend the application as indicated on the following pages.

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September 7, 2005
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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A pharmaceutical composition comprising a drug that regulates the function of a JTT-1 antigen.
2. (Original) The pharmaceutical composition of claim 1, wherein the drug is a low molecular weight compound.
3. (Original) The pharmaceutical composition of claim 1, wherein the drug is an antisense substance.
4. (Original) The pharmaceutical composition of claim 1, wherein the drug is a polypeptide.
5. (Original) The pharmaceutical composition of claim 1, wherein the pharmaceutical composition activates or stimulates the function of the JTT-1 antigen.
6. (Original) The pharmaceutical composition of claim 5, wherein the drug is a low molecular weight compound.
7. (Original) The pharmaceutical composition of claim 1, wherein the pharmaceutical composition inhibits or suppresses the function of the JTT-1 antigen.

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8. (Original) The pharmaceutical composition of claim 7, wherein the drug is a low molecular weight compound.

9. (Original) The pharmaceutical composition of claim 1, wherein the pharmaceutical composition is effective at treating or preventing an autoimmune disease, an allergic disease, or an inflammatory disease.

10. (Original) The pharmaceutical composition of claim 9, wherein the drug is a low molecular weight compound.

11. (Original) The pharmaceutical composition of claim 1, wherein the JTT-1 antigen is a human JTT-1 antigen.

12. (Original) The pharmaceutical composition of claim 1, wherein the JTT-1 antigen comprises the amino acid sequence of SEQ ID NO:2.

13. (Original) The pharmaceutical composition of claim 12, wherein the JTT-1 antigen consists of the amino acid sequence of SEQ ID NO:2.

14. (Original) The pharmaceutical composition of claim 13, wherein the drug is a low molecular weight compound.

15. (Original) The pharmaceutical composition of claim 14, wherein the pharmaceutical composition inhibits or suppresses the function of the JTT-1 antigen.

16. (Original) The pharmaceutical composition of claim 1, wherein the JTT-1 antigen comprises the amino acid sequence of SEQ ID NO:2 in which one to ten amino acids are substituted, deleted or added, and wherein

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(a) the JTT-1 antigen comprises the amino acid sequence Phe-Asp-Pro-Pro-Phe (SEQ ID NO:21) in its extracellular region,

(b) the JTT-1 antigen comprises the amino acid sequence Tyr-Met-Phe-Met (SEQ ID NO:22) in its cytoplasmic region, and

(c) an antibody reactive with the JTT-1 antigen induces proliferation of peripheral blood lymphocytes in the presence of an antibody reactive with CD3.

17. (Original) The pharmaceutical composition of claim 16, wherein the drug is a low molecular weight compound.

18. (Currently Amended) A method of treating a disease selected from the group consisting of an autoimmune disease, an allergic disease, or an inflammatory disease in a subject, the method comprising administering to the subject an effective amount of the pharmaceutical composition of claim 1, wherein the drug is a low molecular weight compound, an antisense substance, or a polypeptide.

19. (Original) The method of claim 18, wherein the disease is an autoimmune disease.

20. (Original) The method of claim 18, wherein the disease is an allergic disease.

21. (Original) The method of claim 18, wherein the disease is an inflammatory disease.

22. (Original) The method of claim 18, wherein the disease is rheumatoid arthritis, multiple sclerosis, autoimmune thyroiditis, allergic contact dermatitis, chronic inflammatory dermatosis, systemic lupus erythematosus, insulin dependent diabetes mellitus, or psoriasis.

23. (Original) The method of claim 18, wherein the drug is a low molecular weight compound.

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24. (Original) The method of claim 18, wherein the drug is an antisense substance.

25. (Original) The method of claim 18, wherein the drug is a polypeptide.

26. (Cancelled)

27. (Original) The method of claim 18, wherein the pharmaceutical composition activates or stimulates the function of the JTT-1 antigen.

28. (Original) The method of claim 27, wherein the drug is a low molecular weight compound.

29. (Original) The method of claim 18, wherein the pharmaceutical composition inhibits or suppresses the function of the JTT-1 antigen.

30. (Original) The method of claim 29, wherein the drug is a low molecular weight compound.

31. (Original) The method of claim 18, wherein the JTT-1 antigen is a human JTT-1 antigen.

32. (Original) The method of claim 18, wherein the JTT-1 antigen comprises the amino acid sequence of SEQ ID NO:2.

33. (Original) The method of claim 32, wherein the JTT-1 antigen consists of the amino acid sequence of SEQ ID NO:2.

34. (Original) The method of claim 33, wherein the drug is a low molecular weight compound.

35. (Original) The method of claim 34, wherein the pharmaceutical composition inhibits or suppresses the function of the JTT-1 antigen.

36. (Original) The method of claim 18, wherein the JTT-1 antigen comprises the amino acid sequence of SEQ ID NO:2 in which one to ten amino acids are substituted, deleted or added, and wherein

(a) the JTT-1 antigen comprises the amino acid sequence Phe-Asp-Pro-Pro-Phe (SEQ ID NO:21) in its extracellular region,

(b) the JTT-1 antigen comprises the amino acid sequence Tyr-Met-Phe-Met (SEQ ID NO:22) in its cytoplasmic region, and

(c) an antibody reactive with the JTT-1 antigen induces proliferation of peripheral blood lymphocytes in the presence of an antibody reactive with CD3.

37. (Original) The method of claim 36, wherein the drug is a low molecular weight compound.

38. (Original) A method of identifying a substance that regulates JTT-1 antigen function, the method comprising:

providing a transgenic mouse transgenic for human JTT-1 antigen;

administering a test substance to the mouse; and

determining whether the test substance regulates the function of human JTT-1 antigen.

39. (Original) The method of claim 38, wherein the test substance is a low molecular weight compound.

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40. (Original) The method of claim 38, wherein the test substance is an antisense substance.

41. (Original) The method of claim 38, wherein the test substance is a polypeptide.

42. (Original) The method of claim 38, wherein the test substance is an antibody.

43. (Original) The method of claim 38, wherein the determining step determines whether the test substance activates or stimulates the function of the JTT-1 antigen.

44. (Original) The method of claim 43, wherein the test substance is a low molecular weight compound.

45. (Original) The method of claim 38, wherein the determining step determines whether the test substance inhibits or suppresses the function of the JTT-1 antigen.

46. (Original) The method of claim 45, wherein the test substance is a low molecular weight compound.

47. (Original) The method of claim 38, wherein the human JTT-1 antigen comprises the amino acid sequence of SEQ ID NO:2.

48. (Original) The method of claim 47, wherein the human JTT-1 antigen consists of the amino acid sequence of SEQ ID NO:2.

49. (Original) The method of claim 48, wherein the test substance is a low molecular weight compound.

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50. (Original) The method of claim 49, wherein the determining step determines whether the test substance inhibits or suppresses the function of the JTT-1 antigen.

51. (Original) The method of claim 38, wherein the human JTT-1 antigen comprises the amino acid sequence of SEQ ID NO:2 in which one to ten amino acids are substituted, deleted or added, and wherein

(a) the human JTT-1 antigen comprises the amino acid sequence Phe-Asp-Pro-Pro-Pro-Phe (SEQ ID NO:21) in its extracellular region,

(b) the human JTT-1 antigen comprises the amino acid sequence Tyr-Met-Phe-Met (SEQ ID NO:22) in its cytoplasmic region, and

(c) an antibody reactive with the human JTT-1 antigen induces proliferation of peripheral blood lymphocytes in the presence of an antibody reactive with CD3.

52. (Original) The method of claim 51, wherein the test substance is a low molecular weight compound.

53. (Original) A method of identifying a substance that regulates JTT-1 antigen function, the method comprising:

providing a purified polypeptide comprising the extracellular domain of a JTT-1 antigen; contacting the polypeptide with a test substance; and

determining whether the test substance interacts with the polypeptide, wherein such interaction indicates that the test substance is a potential regulator of JTT-1 antigen.

54. (Original) The method of claim 53, wherein the polypeptide is a fusion protein.

55. (Original) The method of claim 54, wherein the fusion protein comprises a portion of a constant region of an immunoglobulin heavy chain.

56. (Original) The method of claim 53, wherein the extracellular region is amino acid residues 1-140 of SEQ ID NO:2.

57. (Original) The method of claim 53, wherein the test substance is a low molecular weight compound.

58. (Original) The method of claim 53, wherein the test substance is a polypeptide.

59. (Original) The method of claim 53, wherein the test substance is an antibody.

60. (Original) The method of claim 53, wherein the test substance activates or stimulates the function of the JTT-1 antigen.

61. (Original) The method of claim 60, wherein the test substance is a low molecular weight compound.

62. (Original) The method of claim 53, wherein the test substance inhibits or suppresses the function of the JTT-1 antigen.

63. (Original) The method of claim 62, wherein the test substance is a low molecular weight compound.

64. (Original) The method of claim 53, wherein the human JTT-1 antigen comprises the amino acid sequence of SEQ ID NO:2.

65. (Original) The method of claim 64, wherein the human JTT-1 antigen consists of the amino acid sequence of SEQ ID NO:2.

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66. (Original) The method of claim 65, wherein the test substance is a low molecular weight compound.

67. (Original) The method of claim 66, wherein the test substance inhibits or suppresses the function of the JTT-1 antigen.

68. (Original) The method of claim 53, wherein the human JTT-1 antigen comprises the amino acid sequence of SEQ ID NO:2 in which one to ten amino acids are substituted, deleted or added, and wherein

- (a) the human JTT-1 antigen comprises the amino acid sequence Phe-Asp-Pro-Pro-Pro-Phe (SEQ ID NO:21) in its extracellular region,
- (b) the human JTT-1 antigen comprises the amino acid sequence Tyr-Met-Phe-Met (SEQ ID NO:22) in its cytoplasmic region, and
- (c) an antibody reactive with the human JTT-1 antigen induces proliferation of peripheral blood lymphocytes in the presence of an antibody reactive with CD3.

69. (Original) The method of claim 68, wherein the test substance is a low molecular weight compound.

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REMARKS

Claims 1-25 and 27-69 are pending in the application. Claim 26 has been cancelled without prejudice. Claim 18 has been amended. Support for the amendment can be found in the specification at, e.g., page 115, line 21, to page 116, line 2. No new matter has been added.

Applicants submit that all claims are in condition for allowance, which action is earnestly requested.

Please apply any charges or credits to deposit account 06-1050, referencing Attorney Docket No. 14539-004012.

Respectfully submitted,

Date: September 7, 2005



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